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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,789	11/14/2003	Alastair James Buchanan	1-24912	8772

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EXAMINER

MANCHO, RONNIE M

ART UNIT PAPER NUMBER

3663

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,789

Applicant(s)

BUCHANAN ET AL.

Examiner

Ronnie Mancho

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/14/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 6, 7, 9, etc objected to because of the following informalities: The dependence of these claims is improper. The applicants are advised to write the claims according to proper US standards. The rejection also applies to the other multiple dependent claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Sawamoto et al (EP 0890470 A2).

Regarding claim 1, Sawamoto et al (abstract) disclose disclose a target object sensing apparatus for a host vehicle, the apparatus comprising:

a lane detection apparatus provided on the host vehicle which includes an image acquisition means adapted to capture an image of at least a part of the road ahead of the host vehicle (col. 6, lines 10 et. seq., line 33);

a vehicle path estimation means adapted to estimate a projected path for the host vehicle (e.g. col. 7, lines.28 to 54, abstract);

a target vehicle detection means located on the host vehicle which is adapted to identify the position located on the road ahead of the host vehicle (Fig. 4), the position including data

Art Unit: 3663

representing the distance of the target vehicle from the host vehicle first data processing means adapted to determine a target lane (abstract, fig. 3 and 4) in which the host vehicle will be located when it has traveled along the projected path by distance the target object (col. 9, lines 44 et seq., fig. 7);

second processing means adapted to compare the position of the target vehicle determined by the target detection means with the position of the target lane to provide a processed estimate of the actual position of the target object (col. 7, lines 38 et seq., col. 9 lines 43 et seq.) .

Note! From fig. 7 in combination with the corresponding part of the description on page 9, line 44 etc, it is clear for the person skilled in the art, that the calculation means of the prior art are able to predict the position of the host vehicle in a future path (in particular lines 51 etc). This implies that also the position of the host vehicle can be estimated, when it has traveled by the distance to the target object.

In the prior art, the positions of all participants (host and target vehicles) are plotted in a absolute system of coordinates (col. 7 and col. 9) in order to be able to compare distances of objects on real and estimated paths.

Regarding claims 2-23, the prior art also anticipates the limitations therein. These claims suggest only slight constructional changes in the device of claim 1 which comes within the scope of one of high skill in the art.

Communication

Art Unit: 3663

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 703-305-6318. The examiner can normally be reached on Mon-Thurs: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RONEL BEAULIEU
PRIMARY EXAMINER

Ronnie Mancho
Examiner
Art Unit 3663

9/15/04